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ABSTRACT

The basic skills level of returning adult students was investigated longitudinally. A total of 217 entering juniors majoring in business administration in fall 1980 were followed for 3 years. Through assessment and course work, 146 students demonstrated at least minimum basic skills competencies in English usage and algebra, but 71 students had at least one deficiency. Groups varied on the rates of academic success, achieving a minimum cumulative grade point average of 2.0 on a 4.0 scale, and nonenrollment in 1983 due to not meeting degree requirements. The rates of academic success were 90 percent for students meeting the basic skills requirements, and 36 percent for the other students. The attrition rates were 29 percent for students demonstrating basic skills in English usage and algebra, versus 95 percent for those with at least one skill deficiency. Support was found for the testing-remediation paradigm for older, reentry college juniors, which demanded minimum competencies in basic skills. (Author/SW)

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Abstract

A LONGITUDINAL STUDY OF THE ENGLISH USAGE AND ALGEBRA BASIC SKILLS TESTING REMEDIATION PARADIGM FOR OLDER, RE-ENTRY COLLEGE JUNIORS

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A total of 217 entering juniors majoring in business administration in the fall term of 1980 were followed for three years. Through assessment and course work, 146 students demonstrated at least minimum basic skills competencies in English usage and algebra, but 71 students had at least one deficiency. The rates of academic success, a minimum cumulative grade point average of 2.0 on a 4.0 scale, and attrition, non-enrollment in 1983 of students not meeting their degree requirement, varied by group. Specifically, the rates of academic success were 90 percent for students meeting the basic skills requirements and 36 percent for the other students. The attrition rates were 29 percent for students demonstrating basic skills in English usage and algebra versus 95 percent for those with at least one skill deficiency. Thus, the testing-remediation paradigm for older, re-entry college juniors demanding minimum competencies in the basic skills necessary to challenge the curriculum is supported by the criteria of academic success and of attrition.

Paper presented at the annual meeting of the American Educational Research Association at New Orleans in April, 1984.

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At an upper division university, a basic skills testing program in the College of Business and Public Administration has been evaluated by areas assessed, English and mathematics. These studies focused upon the implications of identifying and remediating weaknesses of adult re-entry students during their first year of academic history.

English skills were assessed by the Test of Standard Written English (Educational Testing Service, 1974-1978). Students not earning at least the national norming median were required to pass an English course designed to remediate their weakness. Academic success was found to be highest for students passing the test, lower for students passing the English course, and lowest for students not passing or enrolling in the additional course requirements (Suddick, 1981, 1982).

Mathematics skills were assessed by the algebra examinations of the Descriptive Tests of Mathematics Skills (Educational Testing Service, 1979). Students not earning at least a raw score of 21 on Elementary Algebra Skills and at least a raw score of 15 on Intermediate Algebra Skills were required to pass an algebra course before enrolling in calculus and statistics. For students passing the algebra course, their grades in the prerequisite course correlated positively with their grades earned in the advanced level mathematics courses. Furthermore, the grades

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earned in the calculus and statistics courses were higher for students passing the DTMS, but remediation was found to be successful (Suddick and Collins, 1982, in press).

Based upon the cited evaluations, Suddick and Collins (in press) concluded that the basic skill level of returning adult students should be assessed and that academic success would be enhanced by requiring all students to achieve a minimum level of basic skill competencies. This hypothesis was tested by following students for three years. Two criteria were used: attrition and grades.

Method

In the fall term of 1980, 219 juniors and seniors, mean age of 27.8 years, entered the institution as business administration majors. The students had the option of participating in the testing program, 100 of 167 successfully challenged the TSWE and 74 of 131 passed both DTMS algebra tests. In total, 49 students passed both tests, 51 students passed the TSWE, and 25 students passed the DTMS. After three years, 146 students met the English and mathematics competencies: 49 initially passing the tests, 57 by passing one test and one course, and 40 by passing both courses.

After the spring/summer registration, the academic histories of the students were reviewed. Students who had not been graduated were classified as drop-outs if they had not enrolled for the first two academic terms of 1983. Students were denoted as academically successful if their cumulative grade point average was at least 2.0 on a 4.0 scale.

Results

The attrition rate of the students meeting the basic skill requirements was 29 percent versus 95 percent for those who did not meet the English and algebra requirements. The ratio difference, 66 percent, was statistically significant ($t_{217} = 9.17$, $p < 0.001$).

The other criterion was a grade point average of 2.0 or higher on a 4.0 scale. The percentages by group were as follows: 36 for those with one or both deficiencies and 90 for their peers satisfying both requirements. The difference in percentages was 54 and was statistically significant ($t_{217} = 8.53$, $p < 0.001$).

Discussion

The prevailing literature documents that the academic levels of returning adult college students is abated in comparison to their skills when they were last enrolled in the formal instructional setting. At one institution, a testing-remediation paradigm has been implemented and evaluated by basic skills area for criteria over a one year period. These evaluations revealed that remediation of basic skills deficiencies in English and mathematics enhances academic success. This study extended the duration of follow-up to three years and used the criteria of drop-out and academic success. Students who met the basic skills level either by examinations or by courses had a 66 percent higher rate of academic success and a 54 percent lower attrition rate than students not demonstrating minimum competency levels in English and algebra.

While it may be argued that not meeting the basic skills level was associated with attrition, the validity of the supposition is not applicable to academic performance. Rather it would appear that demonstration of basic skills necessary to challenge the curriculum is a requisite for academic success of returning adult college students. Furthermore, the students having the minimum competencies tend to continue pursuit of their academic programs.

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